

SERVICE MANUAL

**DATSUN PICK-UP
MODEL 620 SERIES
CHASSIS & BODY**

SECTION ER

ENGINE REMOVAL & INSTALLATION

ER

**ENGINE REMOVAL AND
INSTALLATION**

ER- 2



**NISSAN MOTOR CO., LTD.
TOKYO, JAPAN**

ENGINE REMOVAL & INSTALLATION

ENGINE REMOVAL AND INSTALLATION

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ENGINE REPLACEMENT

Removal

It is much easier to remove the engine with the transmission as a single unit than to remove only the engine from engine compartment. The engine can then be separated from the transmission assembly.

Note: Fender covers should be used to prevent damaging vehicle body.

1. Disconnect battery ground cable.
2. Scribe hood hinge location for proper reinstallation and remove hood.
3. Remove air cleaner after disconnecting blow-by hose from rocker cover.
4. Drain radiator coolant and engine oil.
5. Disconnect radiator upper and lower hoses from engine.
6. Remove four bolts securing radiator and detach radiator.

Note: Securing bolt at upper right hand side is tightened together with body harness terminal.

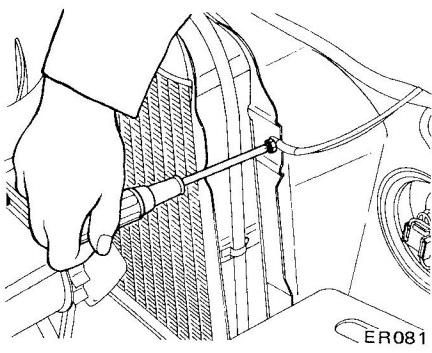


Fig. ER-1 Removing radiator securing bolts

7. Disconnect engine ground cable at cylinder head.

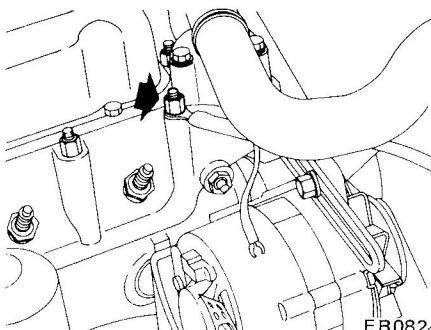


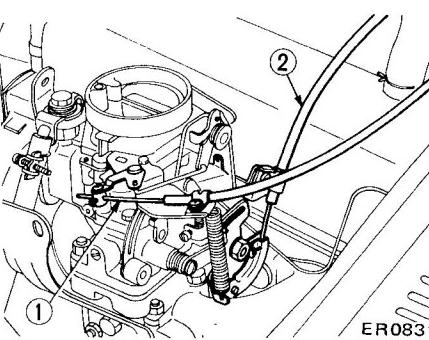
Fig. ER-2 Disconnecting engine ground cable

8. Disconnect wires at:

- (1) Starter
- (2) Alternator
- (3) High tension cable at ignition coil
- (4) Oil pressure switch and thermal transmitter

9. Disconnect:

- (1) Fuel line at fuel pump
- (2) Heater line at engine side
- (3) Choke wire and accelerator wire at carburetor



1 Choke wire 2 Accelerator wire

Fig. ER-3 Disconnecting choke wire and accelerator wire

10. Remove transmission control linkage from transmission.

«For remote control linkage type»

- (1) Remove cross shaft assembly from transmission at the portion shown by two black arrows.
- (2) Remove select rod from select lever at the portion shown by a white arrow.

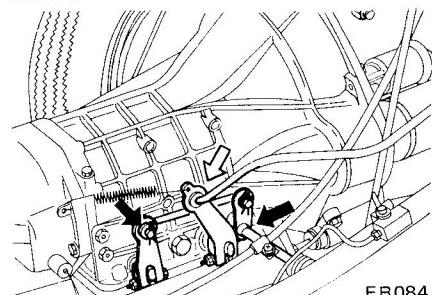


Fig. ER-4 Removing cross shaft and select rod

«For floor shift control type»

- (1) Detach rubber boot.
- (2) Remove nut from shift lever and detach shift lever.

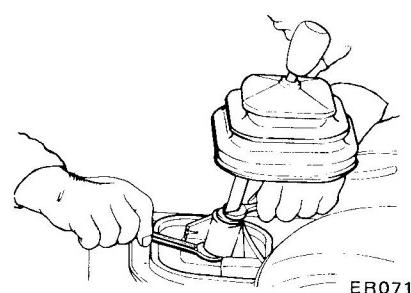


Fig. ER-5 Removing shift lever

11. Remove two bolts (shown by arrows) securing clutch operating cylinder. Then disconnect operating cylinder and flexible tube as an assembly.

ENGINE REMOVAL & INSTALLATION

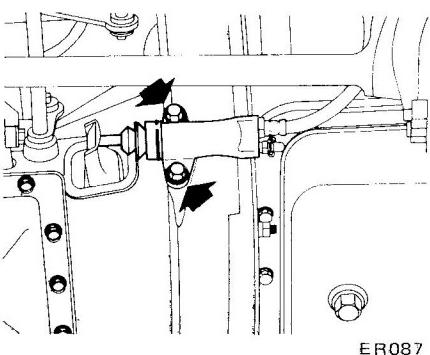


Fig. ER-6 Removing clutch operating cylinder

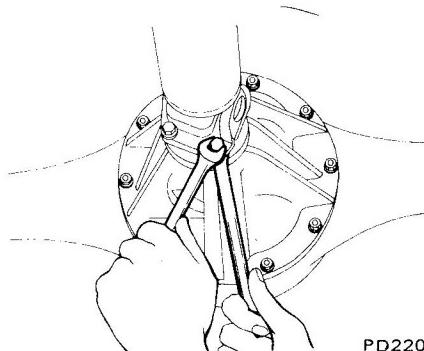


Fig. ER-9 Disconnecting propeller shaft

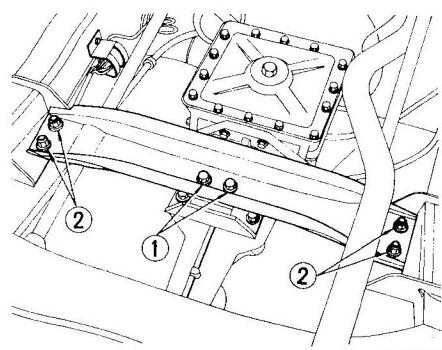


Fig. ER-11 Removing engine mounting rear support

12. Disconnect speedometer cable and reverse lamp wiring.

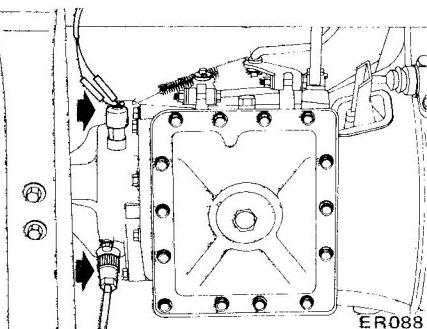


Fig. ER-7 Disconnecting speedometer cable and reverse lamp wiring

13. Disconnect exhaust front tube from exhaust manifold.

14. Remove propeller shaft.

(1) Disconnect propeller shaft center bearing bracket from third cross-member.

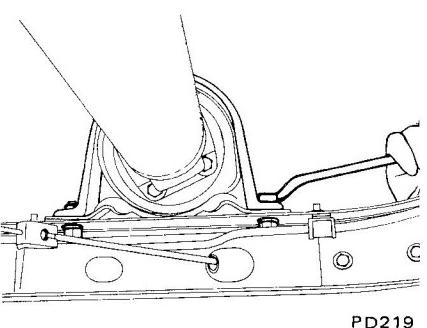


Fig. ER-8 Removing propeller shaft center bearing bracket

(2) Disconnect propeller shaft at companion flange of gear carrier.

(3) Remvoing propeller shaft from transmission, plug up rear end of extention housing of transmission to prevent oil leakage.

15. Attach a suitable wire to shift engine.

Remove engine front mounting bolts (shown by arrows) at engine mounting front support.

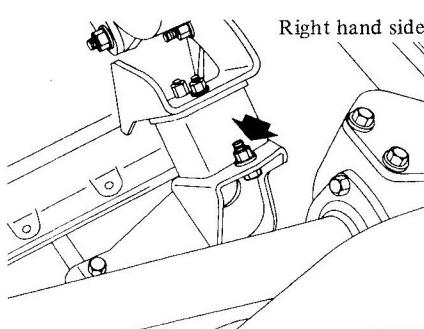
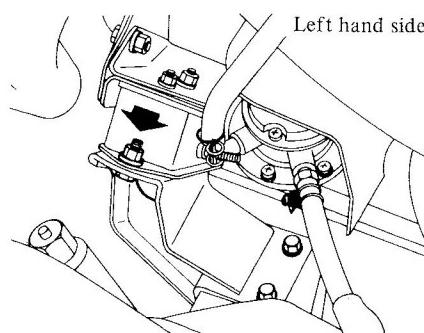


Fig. ER-10 Removing engine front mounting bolts

16. Place a jack under transmission and jack it up.

17. Loosen two ① engine rear mounting bolts.

Remove four ② bolts securing engine mounting rear support to side member and detach the rear support.

18. Pull engine towards the front as far as possible and carefully raise engine with transmission by means of a hoist and wire. See Figure ER-12.

Then support them on engine stand.

Note: In this operation, care should always be taken not to allow the unit hitting against any adjacent parts.

ENGINE REMOVAL & INSTALLATION

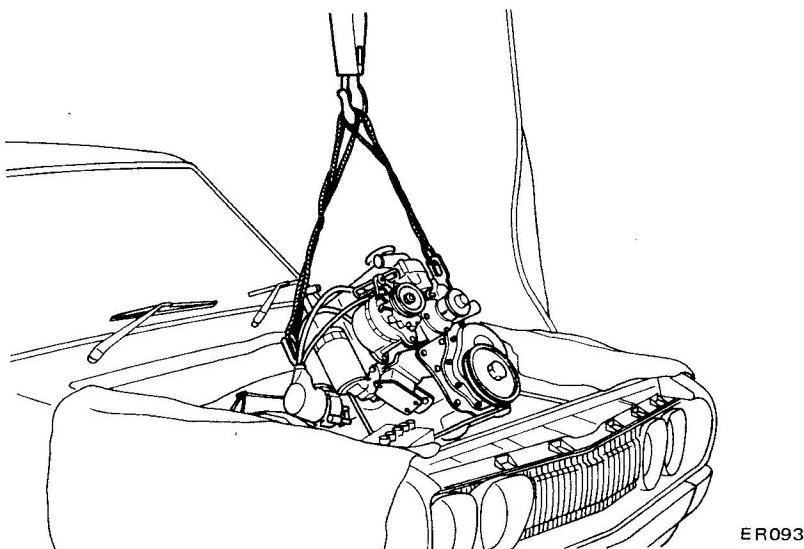


Fig. ER-12 Lifting engine and transmission

mounting front support, use upper bolt hole of insulator as a guide and engine installation can be carried out easily.

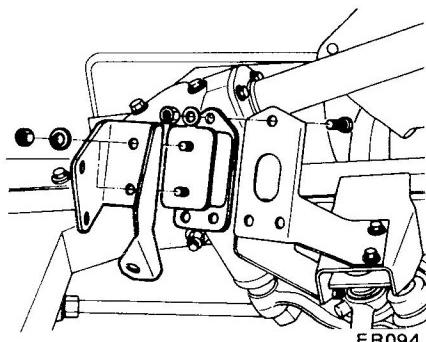


Fig. ER-13 Installing insulator to support

Installation

To install, reverse the order of removal.

Do not connect any parts to the engine until engine mounting insulators are placed and power unit weight is supported by them.

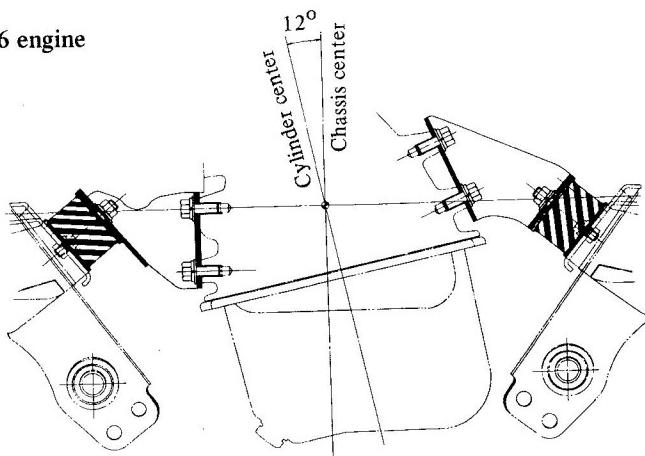
Notes:

- As the sequence of installation, first secure engine mounting rear support to frame.
- When installing front mounting insulator with engine to engine

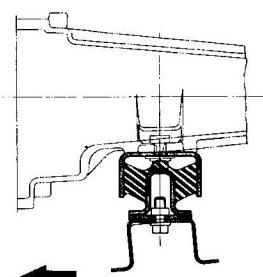
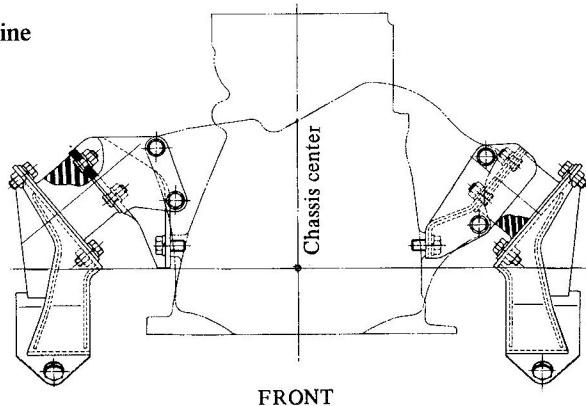
ENGINE MOUNTING INSULATOR

Three insulators are used to mount the engine; two at left and right front ends of the cylinder block and one at transmission rear extension housing.

L16 engine



J engine



ER095

Fig. ER-14 Structural view of engine mounting

ENGINE REMOVAL & INSTALLATION

Notes:

- a. Replace front or rear insulator assembly when rubber of engine mounting insulator is cracked, abnormally worn or deteriorated.
- b. Keep insulator free from oil or grease.

Front mounting insulator

Front mounting insulators are the same parts between right and left hand sides and interchangeable with each other.

Removal and installation

1. Remove hood.
2. Remove air cleaner after disconnecting blow-by hose.
3. Disconnect hoses and cables as same manner in removing engine assembly.
4. Attach a suitable wire to lift engine.
5. Remove engine front mounting nuts at front mounting brackets.
Carefully raise engine by means of a hoist and wire.
6. Remove front mounting insulators at front supports after removing

front mounting bolts.

7. To install, reverse the order of removal.

Rear mounting insulator

It is possible to locate the both face of rear mounting insulator facing toward front.

But engine mounting rear support must be located shown by Figure ER-15.

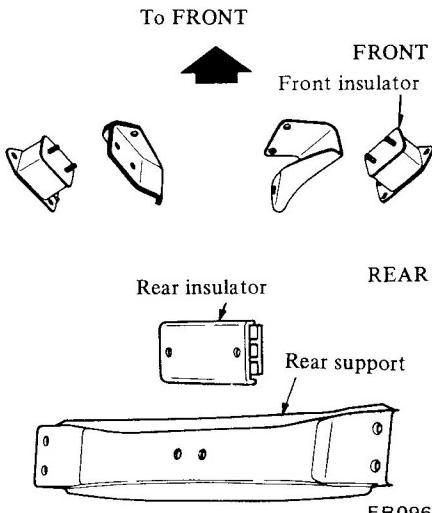


Fig. ER-15 Mounting insulator and rear support

Removal and installation

1. Place a jack under transmission and jack it up slightly.
2. Loosen two engine rear mounting bolts.
3. Remove four bolts securing engine mounting rear support to side member and detach the rear support.
4. Remove rear mounting insulator at transmission rear extension after removing insulator securing bolts.
5. To install, reverse the order of removal.

TIGHTENING TORQUE

Fixing bolts and nuts

kg-m (ft-lb)

J engine

L16 engine

	J engine	L16 engine
Front mounting bracket		
to cylinder block	2.6 to 3.4 (19 to 25)	1.9 to 2.5 (14 to 18)
to front cover	1.4 to 1.8 (10 to 13)	—
Front mounting insulator		
to bracket	1.4 to 1.8 (10 to 13)	1.6 to 2.2 (12 to 16)
Front mounting insulator		
to front support	1.4 to 1.8 (10 to 13)	—
to frame	—	1.4 to 1.8 (10 to 13)
Rear mounting insulator		
to transmission	3.2 to 3.7 (23 to 27)	3.2 to 3.7 (23 to 27)
Rear mounting insulator		
to rear support	1.6 to 2.2 (12 to 16)	1.6 to 2.2 (12 to 16)
Rear support to frame	1.6 to 2.2 (12 to 16)	1.6 to 2.2 (12 to 16)